Weider Nutrition Group 1960 South 4250 West Salt Lake City UT 84104

STRUCTURE / FUNCTION CLAIMS

NUTRIENT: Caffeine/Guarana/Yohimbe/Quercetin/Mustard

DATE: November 20, 1996

BY: LRB 11/14/96

Document Name: sf01ripf.wpd

BRAND, CODE # & PRODUCT NAME(S):

American Body Building 55522 Ripped Force

600

NUTRIENT AMOUNT:

Caffeine 120mg (from caffeine citrate and 10% guarana extract)

Yohimbe 250mg (2% yohimbine = 5mg yohimbine)

Quercetin 100mg Mustard 300mg Per two capsules

STRUCTURE/FUNCTION CLAIM:

Quercetin and yohimbine (contained in Yohimbe bark) act synergistically with caffeine to emphasize lipolytic (fat burning) effects of caffeine via thermogenesis by effects on alpha adrenergic receptors which influence fat burning. Mustard seed has been used for centuries for its warming properties.

REFERENCES:

- 1. Bucci LR. Dietary substances not required in human metabolism. In: Bucci LR. Nutrients as ergogenic aids for sports and exercise, Boca Raton, FL: CRC Press, 1993, 83-90.
- 2. Nehlig A, Debry G. Caffeine and sports activity: a review. *Int J Sports Med* 1994; 94:215-23.
- 3. Dodd SL, Herb RA, Powers SK. Caffeine and exercise performance. An update. *Sports Med* 1994; 15:14-23.
- 4. Graham TE, Spriet LL. Caffeine and exercise performance. In: Sports Science Exchange, Barrington, IL, Gatorade Sports Science Institute, 1996; 9(60):1-5.
- 5. Carr CJ. Natural plant products that enhance performance and endurance. In: Carr CJ, Jokl E, eds. *Enhancers of performance and endurance*, Hillsdale, NJ: Lawrence Erlbaum Associates, 1986, 138-92.

LET 52/

975-0162

6. Hedner T, Edgar B, Edvinsson L, Hedner J, Persson B, Pettersson A. Yohimbine pharmacokinetics and interaction with the sympathetic nervous system in normal volunteers. *Eur J Clin Pharmacol* 1992; 43:651-656.

- 7. Kenney WL, Zappe DH, Tankersley CG, Derr JA. Effect of systemic yohimbine on the control of skin blood flow during local heating and dynamic exercise. *Am J Physicl* 1994; 266(2 Pt 2):H371-376.
- 8. Berlan M, Galitzky J, Riviere D, Foureau M, Tran MA, Flores R, Louvet JP, Houin G, Lafontan M. Plasma catecholamine levels and lipid mobilization induced by yohimbine in obese and non-obese women. *Int J Obesity* 1991; 15:305-315.
- 9. Astrup A, Toubro S, Cannon S, Hein P, Breum L, Madsen J. Caffeine: a double-blind, placebo-controlled study of its thermogenic, metabolic, and cardiovascular effects in healthy volunteers. *Am J Clin Nutr* 1985; 51:759-767.